

WHAT IS CLAIMED IS:

1. A liquid crystal display, comprising:

a first insulating substrate;

5 pixel electrodes formed on the first insulating substrate each with a plurality of opening patterns, the pixel electrodes being partitioned into a plurality of micro-regions by way of the opening patterns;

a second insulating substrate facing the first insulating substrate;

a common electrode formed on the second insulating substrate;

10 a liquid crystal layer sandwiched between the first and the second insulating substrates; and

a plurality of protrusion patterns formed on the common electrode, the protrusion patterns being placed at the micro-regions of the pixel electrode to regulate the inclining directions of liquid crystal molecules in the liquid crystal layer,

15 wherein the gap between the first insulating substrate and the second insulating substrate is constantly maintained by the protrusion patterns.

2. The liquid crystal display of claim 1, further comprising a thin film transistor formed on the first insulating substrate while being electrically connected to the pixel electrode.

20 3. The liquid crystal display of claim 1, further comprising a black matrix interposed between the second insulating substrate and the common electrode while being patterned.

4. The liquid crystal display of claim 1, further comprising color filters

interposed between the second insulating substrate and the common electrode corresponding to the pixel electrodes.

5 5. The liquid crystal display of claim 1, wherein the protrusion pattern is shaped of a pillar, a top side and a bottom side of which have a shape of a circle, a rectangle, or a rectangle with curved edges.

 6. The liquid crystal display of claim 5, wherein the protrusion pattern has a height of 3.0-4.5 μ m.

 7. The liquid crystal display of claim 1, wherein the retardation value of the liquid crystal layer is in the range of 0.25-0.4 μ m.

10 8. The liquid crystal display of claim 1, wherein the light incident upon the liquid crystal layer is circularly polarized.

 9. The liquid crystal display of claim 8, further comprising a first polarizing plate and a second polarizing plate externally attached to the first insulating substrate and the second insulating substrate, and first bi-axial film and second bi-axial film
15 interposed between the first insulating substrate and the first polarizing plate and between the second insulating substrate and the second polarizing plate, respectively.

 10. The liquid crystal display of claim 9, further comprising a mono-axial film interposed either between the first polarizing plate and the first bi-axial film, or between the second polarizing plate and the second bi-axial film.

20 11. The liquid crystal display of claim 9, wherein the longest axis of the first

bi-axial film is perpendicular to the longest axis of the second bi-axial film.

12. The liquid crystal display of claim 9, wherein the polarizing axes of the first and the second polarizing plates are angled with respect to the longest axes of the first and the second bi-axial films by 45° .

5 13. The liquid crystal display of claim 9, further comprising a first $\lambda/4$ plate and a second $\lambda/4$ plate interposed between the first insulating substrate and the first bi-axial film and between the second insulating substrate and the second bi-axial film, respectively.

10 14. The liquid crystal display of claim 13, wherein the slow axes of the first $\lambda/4$ plate and the second $\lambda/4$ plate are perpendicular to each other.

15 15. The liquid crystal display of claim 13, where the polarizing axes of the first polarizing plate and the second polarizing plate are angled with respect to the slow axes of the first $\lambda/4$ plate and the second $\lambda/4$ plate by 45° .

16. The liquid crystal display of claim 13, wherein the polarizing axis of the first polarizing plate is parallel to the longest axis of the first bi-axial film, and the polarizing axis of the second polarizing plate is parallel to the longest axis of the second bi-axial film.

17. A liquid crystal display, comprising:
a first insulating substrate;
20 pixel electrodes formed on the first insulating substrate each with an opening pattern;

a second insulating substrate facing the first insulating substrate;

a common electrode formed on the second insulating substrate;

a first protrusion and a second protrusion formed on the common electrode, the first protrusion having a first thickness and the second protrusion having a second
5 thickness larger than the first thickness; and

a liquid crystal layer sandwiched between the first insulating substrate and the second insulating substrate.

18. The liquid crystal display of claim 17, further comprising a thin film transistor formed on the first insulating substrate while being electrically connected to
10 the pixel electrode.

19. The liquid crystal display of claim 17, further comprising a black matrix interposed between the second substrate and the common electrode while being patterned.

20. The liquid crystal display of claim 17, further comprising color filters
15 interposed between the second substrate and the common electrode corresponding to the pixel electrodes.

21. The liquid crystal display of claim 17, wherein the first protrusion and the second protrusion are based on a photosensitive organic insulating film, a photoresist film, or a silicon-containing insulating film.

22. The liquid crystal display of claim 17, wherein the first protrusion has a
20 width of 3-15 μ m.

23. The liquid crystal display of claim 17, wherein the second protrusion is pillar-shaped with a top side and a bottom side having a shape of a polygon or a circle.

24. The liquid crystal display of claim 23, wherein the top side and the bottom side of the second protrusion have a width of 5-40 μ m.

5 25. The liquid crystal display of claim 19, wherein the first protrusion is overlapped with the black matrix.

26. The liquid crystal display of claim 17, wherein the pixel electrode is divided into a plurality of micro-domains by the opening pattern, and the second protrusion is positioned at the center of each micro-domain of the pixel electrode.